

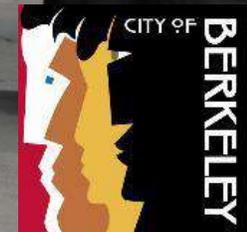
October 26, 2022

Telegraph Avenue Multimodal Corridor Study

Community Workshop #1

Dianne Yee, City of Berkeley

Thaddeus Wozniak, Nelson\Nygaard



Agenda

- 1 Introductions
- 2 Study Area and Background
- 3 Goals and Objectives
- 4 Existing Conditions
- 5 Initial Concepts
- 6 Schedule and Next Steps





Introductions

Say Hello to Our Team



Dianne Yee

City of Berkeley



Thaddeus Wozniak, PE

Nelson\Nygaard



Michael Bjork

Nelson\Nygaard



Briana Weisgerber

Nelson\Nygaard

Beth Thomas

City of Berkeley

Maria Boehm

Nelson\Nygaard



Study Area and Background

Study Area

- Telegraph Avenue
 - Dwight Way to Woolsey Street (Oakland border)
 - Approx. 0.85 miles
- Land Uses
 - Willard Middle School and Park
 - Medical offices and facilities
 - Restaurants, cafes, and retail
 - Existing Residential (low to medium density)
 - Proposed Residential development

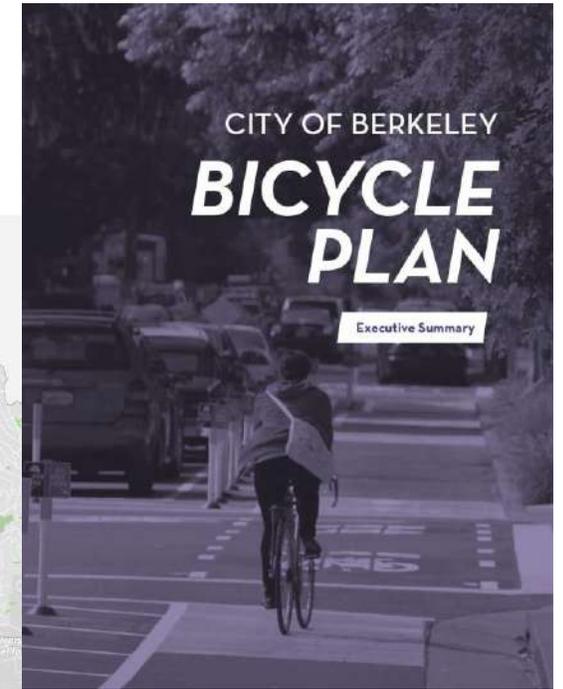
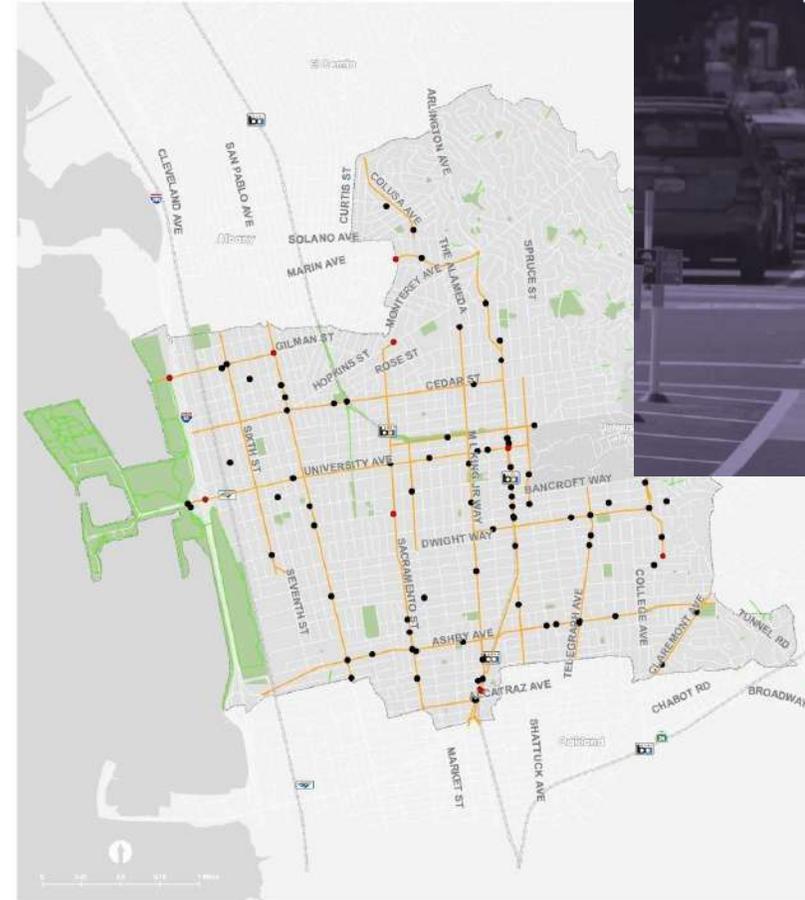


Supporting Studies

Implement City of Berkeley Safety and Multimodal Plans

- Berkeley Strategic Transportation Plan (2017)
- Bicycle Plan (2017) (undergoing update)
- General Plan – Transit-First Policy (2001)
- Pedestrian Plan (2021)
- Southside Plan (2011)
- Vision Zero Action Plan (2019)

FIGURE 12: HIGH INJURY STREETS IN BERKELEY



2. Existing Walking Conditions

Table E-7: Complete Street Corridor Studies Continued

CORRIDOR	LOCATION	CROSS ST A	CROSS ST B	RECOMMENDED STUDY	INTERIM TREATMENT	MILES	COST ESTIMATE
Shattuck Ave*	Shattuck Ave	City Limits - South	Rose St	Study Cycletrack (4)	-	2.08	\$124,700
	Shattuck Ave	City Limits - South	Rose St	-	3C: Sharrows	2.08	\$22,400
Solano Ave	Solano Ave	City Limits - West	Northbrae Tunnel	Study Cycletrack (4)	-	0.52	\$312,600
	Solano Ave	City Limits - West	The Alameda	-	3C: Sharrows	0.30	\$4,900
Telegraph Ave*	Telegraph Ave	Woolsey St	Bancroft Way	Study Cycletrack (4)	-	1.09	\$654,700
	Telegraph Ave	Ashby Ave	Bancroft Way	-	2B: Upgraded Bike Lane	0.87	\$156,500
	Telegraph Ave	Woolsey St	Ashby Ave	-	2B: Upgraded Bike Lane	0.22	\$39,900

Supporting Studies

Improve AC Transit Service

- Major Corridors Study (2016)
- Multimodal Corridor Guidelines (2018)
- Short-Range Transit Plan (2019)

Corridor	Short-Term	Long-Term (by 2040)	Route
Telegraph Avenue	Rapid Bus Upgrades	Bus Rapid Transit (BRT)	6

AC Transit Major Corridors Study
Table B: Final Short-Term and Long-Term Investment Strategies for Major Corridors (pg. 6)

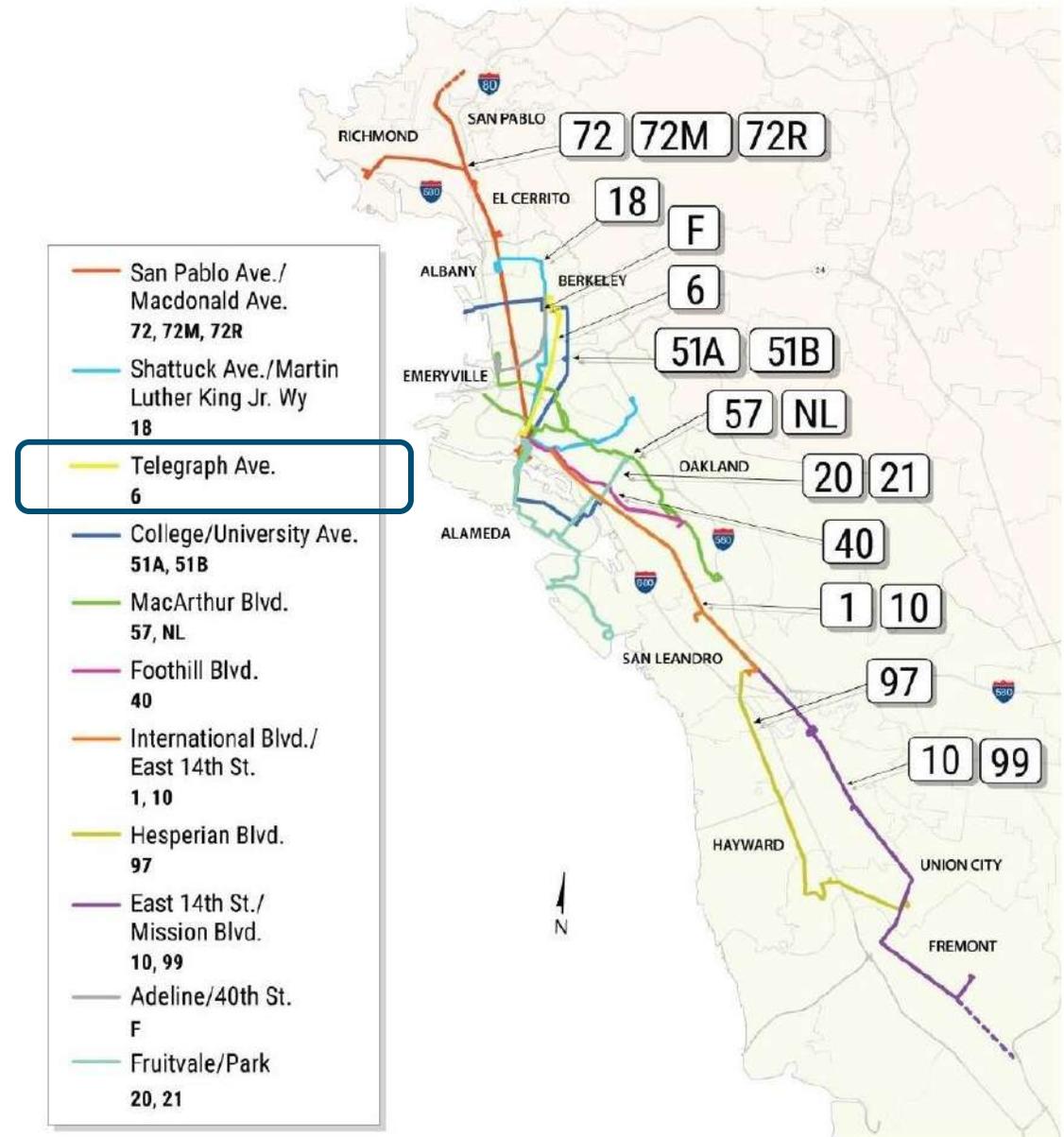


Figure 4: Map of Major Corridors

Project Scope

Develop Concept Plans (15% Design)

- **Transit operation improvements**
 - i.e. Transit lanes, queue jump lanes, bus boarding islands
- **Bikeway improvements**
 - Upgrade existing painted bike lanes to protected bikeways
- **Pedestrian improvements**
 - i.e. Bulb-outs, pedestrian refuges

Two initial high-level concepts

One revised concept and final study report

- Spring 2023

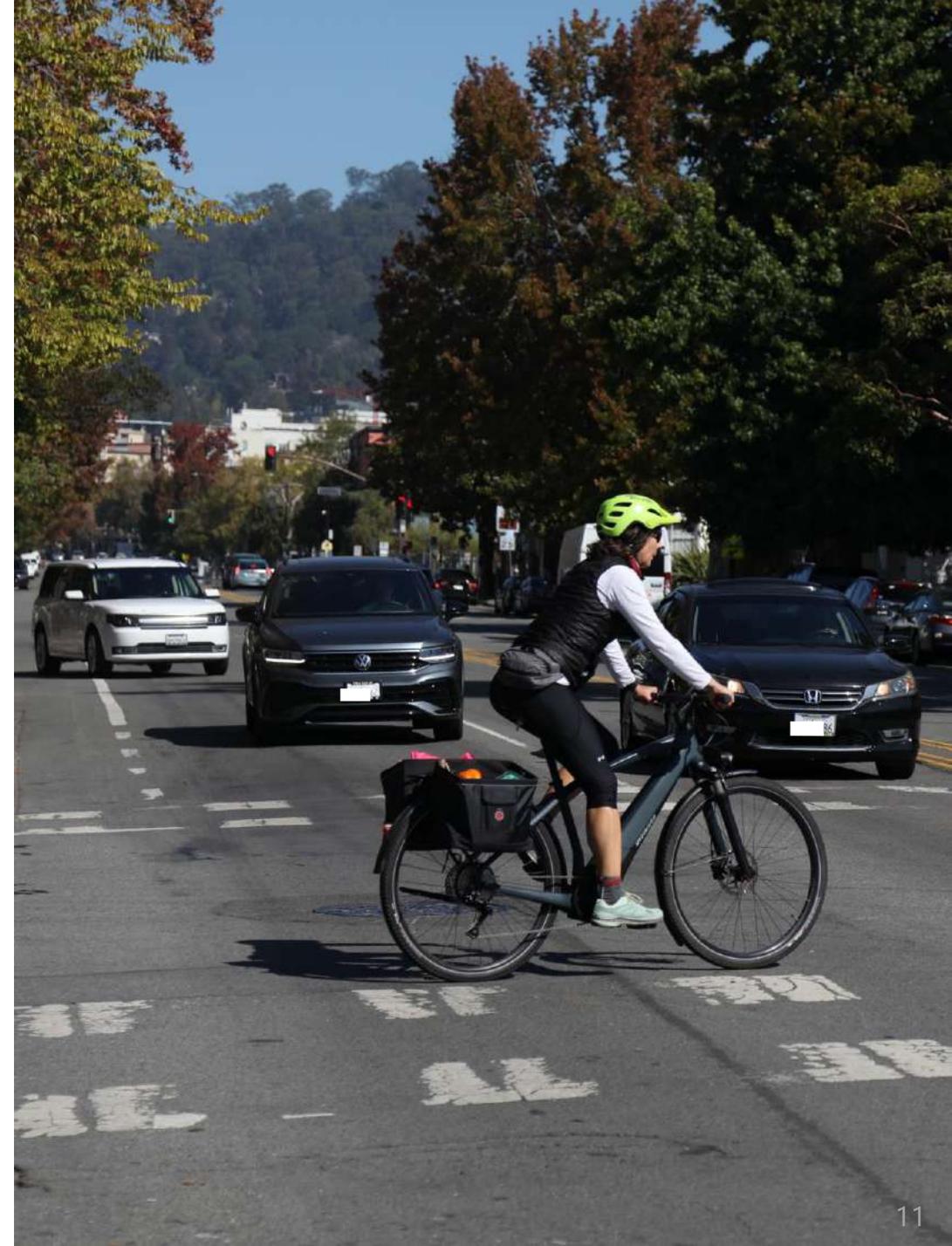
Later phases of this project (detailed engineering and construction) have *not* yet been funded or scheduled.



Goals and Objectives

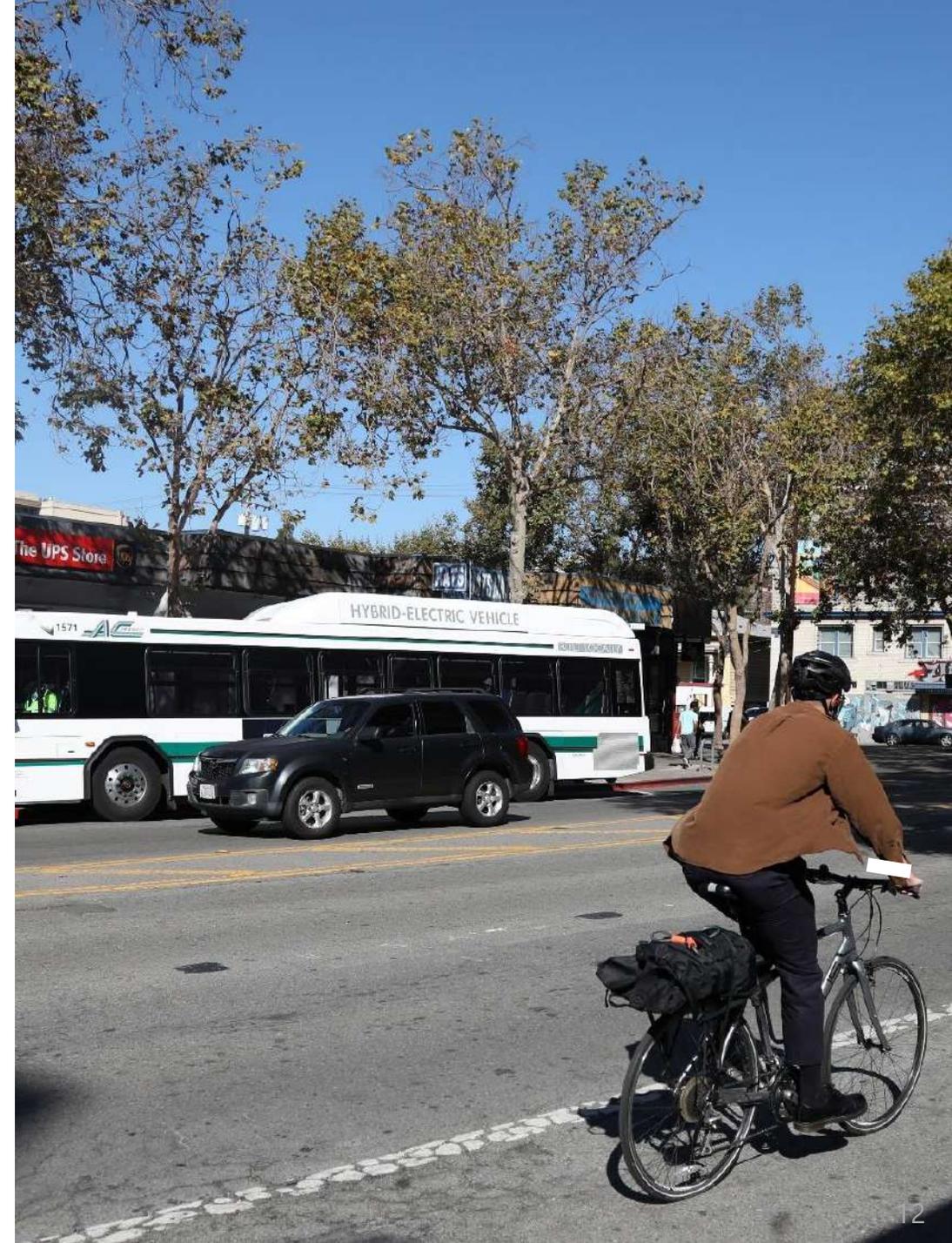
Vision Statement

Provide more **transportation options** by improving **transit speed and reliability** and making Telegraph Avenue **safer for all users**, consistent with the City of Berkeley Vision Zero Policy and Vision Zero Action Plan.



Goals & Objectives

- **Improve transit travel times and on-time reliability**
 - Using treatments such as bus bulbs, queue jumps, and transit lanes.
- **All ages & abilities biking facilities**
 - Provide safe, comfortable, connected bike facilities for bi-directional travel consistent with the goals of the City of Berkeley Bicycle Plan.
- **A state of good repair**
 - Spot pavement repair, ADA curb ramp upgrades, traffic signal upgrades, improved street lighting, and other maintenance activities to enhance safety for all users.
- **Curb management strategy**
 - With input from residents, visitors, and the business community, develop a design that provides commercial and passenger loading zones adequate to support local businesses and destinations, more and better accessible parking spaces and paratransit access, and preserve on-street parking as much as possible.



Vision Zero

The City of Berkeley is committed to an equity-focused, data-driven effort to eliminate traffic deaths and severe injuries on our city streets by 2028.

Independent crime + safety news for Berkeley, CA THE BERKELEY SCANNER

Home Tips About Support The Scanner

Tragedy on Telegraph | Jazy and Spoe

Emilie Raguso

October 14, 2022 7:31 PM · 10

TRAFFIC SAFETY

2 pedestrians taken to hospital after Southside Berkeley crash

One woman reported a leg injury and one said she had pain in her shoulder, police said. They were taken to Kaiser Oakland for treatment.



The Berkeley Fire Department took two pedestrians to the hospital Friday evening after a driver struck them at Telegraph Avenue and Parker Street in the Southside Berkeley neighborhood (file photo). Emilie Raguso/The Berkeley Scanner

A driver who said the setting sun was in his eyes struck two pedestrians in a crosswalk in Berkeley on Friday evening, sending them to the hospital, authorities report.

One of the pedestrians, both women who appeared to be in their 30s, reported a leg injury and one said she had pain in her shoulder, according to preliminary information from the Berkeley Police Department.

Nonprofit news. Free for all, funded by readers.

6 MAPS: How city changed over last decade | ELECTION: What matters to you? | WHAT TO KNOW: Monkey

CRIME & SAFETY

Driver strikes woman in crosswalk on Telegraph, critical injuries reported

The woman is still alive but BPD has called out its Fatal Accident Investigation Team.

By Emilie Raguso

July 25, 2022, 5:51 pm



A woman was taken to the hospital with critical injuries Monday after a driver in a white van (pictured here) struck her in a crosswalk on Telegraph Avenue, July 25, 2022. Credit: Emilie Raguso

Vision Zero

- The guiding principles of Vision Zero are:
 - Safety is our highest priority.
 - Traffic deaths and severe injuries are preventable and unacceptable.
 - People make mistakes.
 - Slower streets are safer streets.
 - We will create safer transportation options for walking, cycling, and taking transit.
 - Street safety must be achieved equitably.
 - Vision Zero will be accountable, transparent, and data-driven.



25%

chance of pedestrian fatality or severe injury



50%

chance of pedestrian fatality or severe injury



90%

chance of pedestrian fatality or severe injury

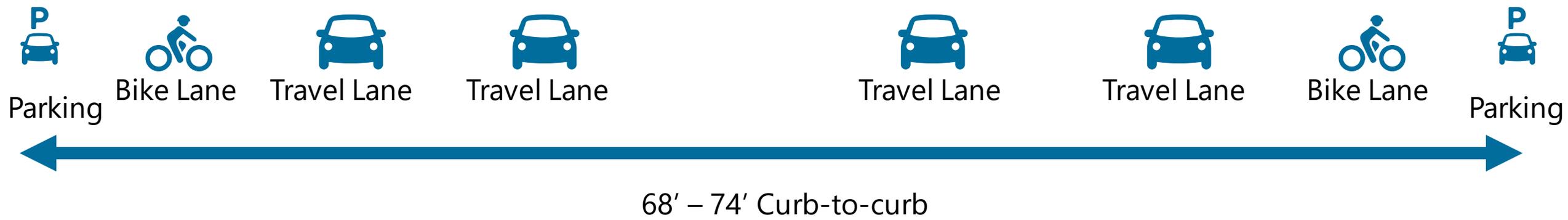
Source: Tefft, Brian, 'Impact speed and a pedestrian's risk of severe injury or death' (Accident Prevention and Analysis, 2013)





Existing Conditions

Street Layout



Driving

- Two travel lanes in each direction
 - Creates safety issues with unrestricted left turns
- 25 mph speed limit
 - Over half of people driving are speeding
- Deteriorating pavement
 - Rutting, alligating, longitudinal cracking
 - Creates usability and safety issues for all users



Driving

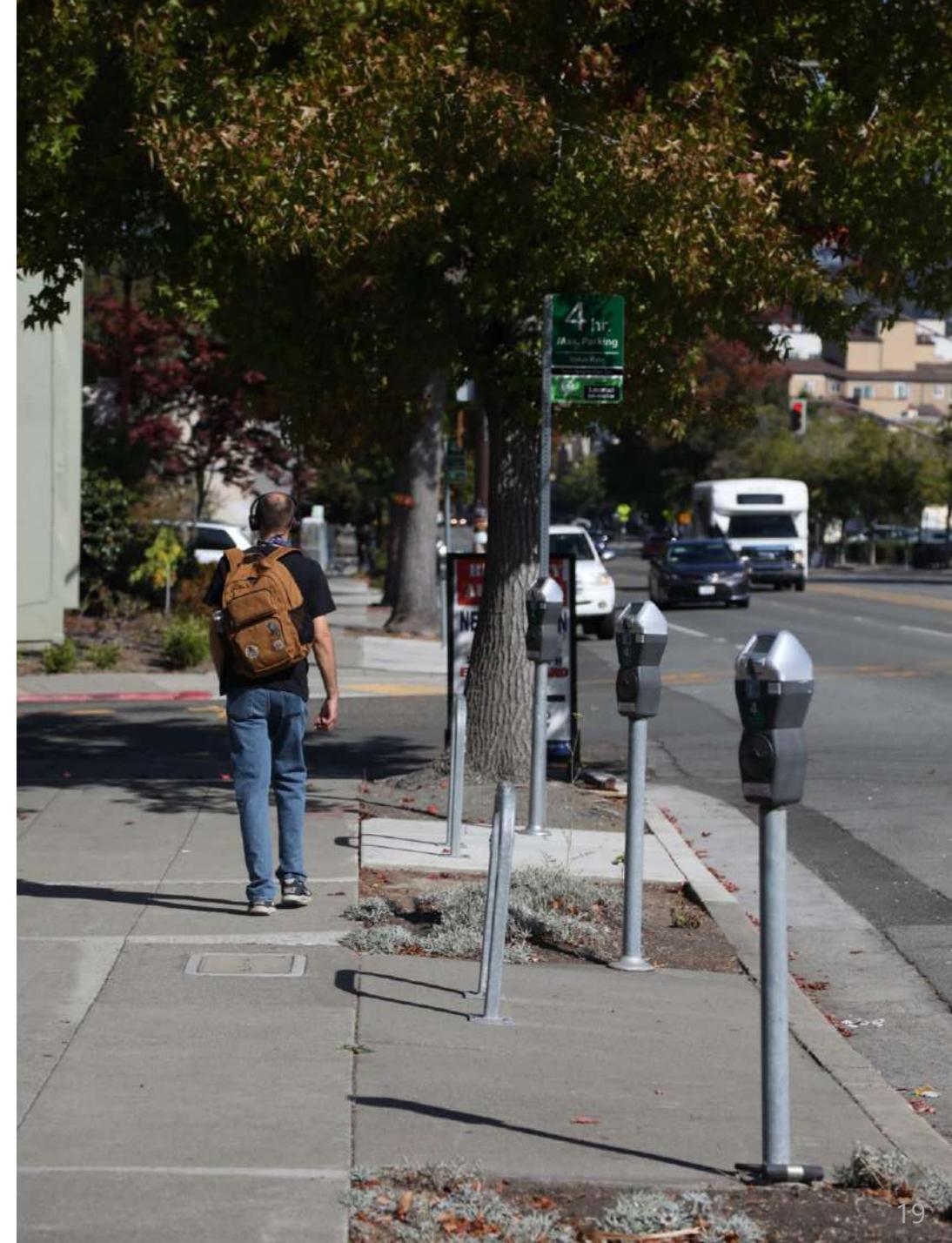
- Free-flow conditions throughout day
 - Traffic counts collected in August 2022
 - Corridor modeling has been completed
 - Current configuration provides significantly more capacity than required



Walking



- Complete sidewalks along Telegraph Avenue
- Recently-updated ADA curb ramps
- West side
 - Typically 6' wide
 - Contains landscaping strip
- East side
 - Typically 8' to 16' wide
 - No landscaping strip
 - Experiencing areas of buckling by tree roots
- 16 intersections
 - 8 signalized
 - 28 of 31 crossings are marked with crosswalks



Bicycling

- Fading and deteriorating conventional bike lanes
 - Dwight Way to Ashby Avenue
 - Existing Class 2 bike lanes
 - Narrow, located within “door zone”
 - People frequently riding in general traffic lane
- Bikeway Gap
 - Ashby Avenue to Woolsey Street/Berkeley City line
 - Sharrows only
- Connecting and complementing other biking investments
 - Intersecting three Bicycle Boulevards at Derby St, Russell St, and Woolsey St.



Transit

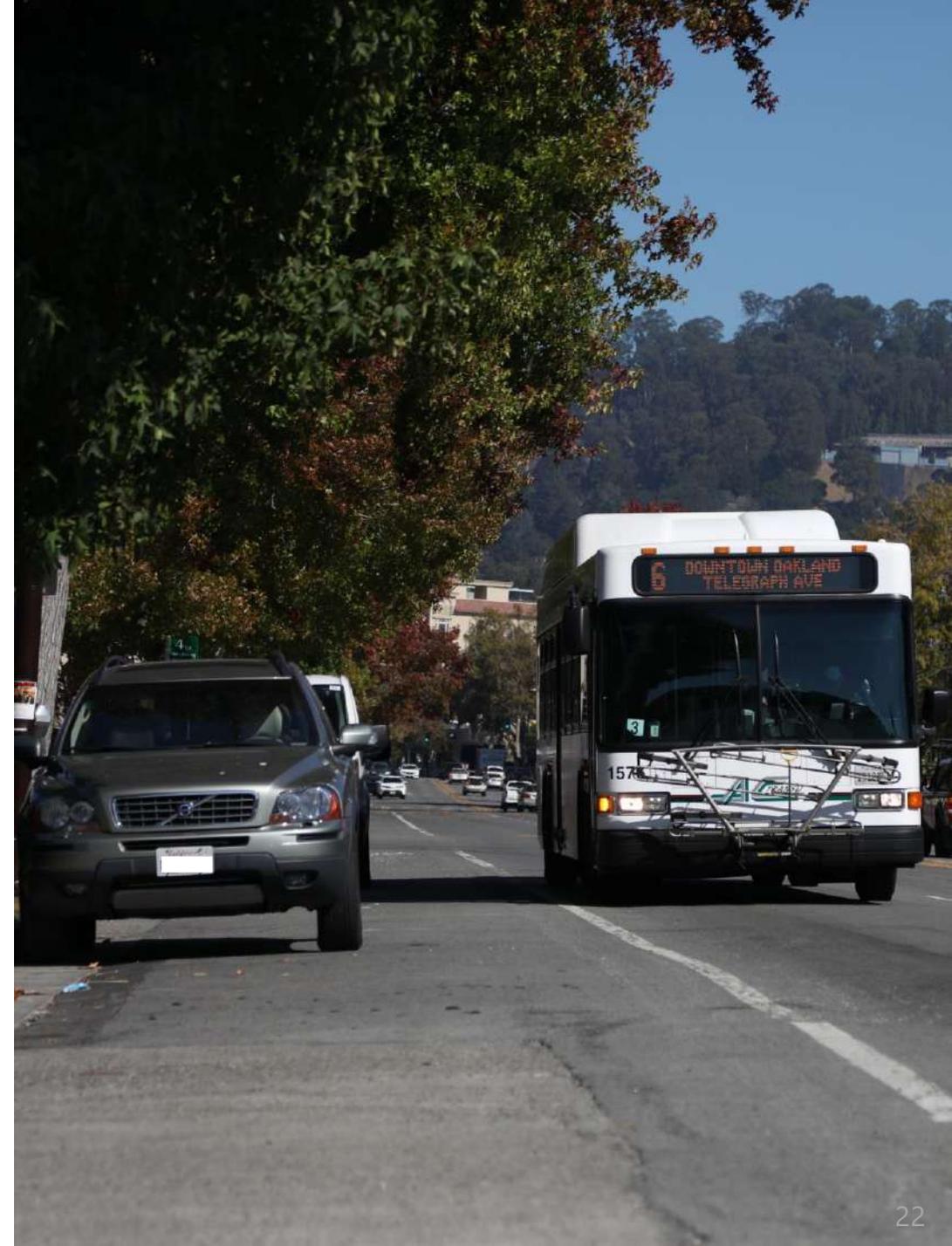
- Frequent transit corridor
 - AC Transit: Lines 6 and 800
 - LBNL Shuttle: Rockridge Route
 - Alta Bates Hospital Shuttles



Transit

AC Transit Route 6

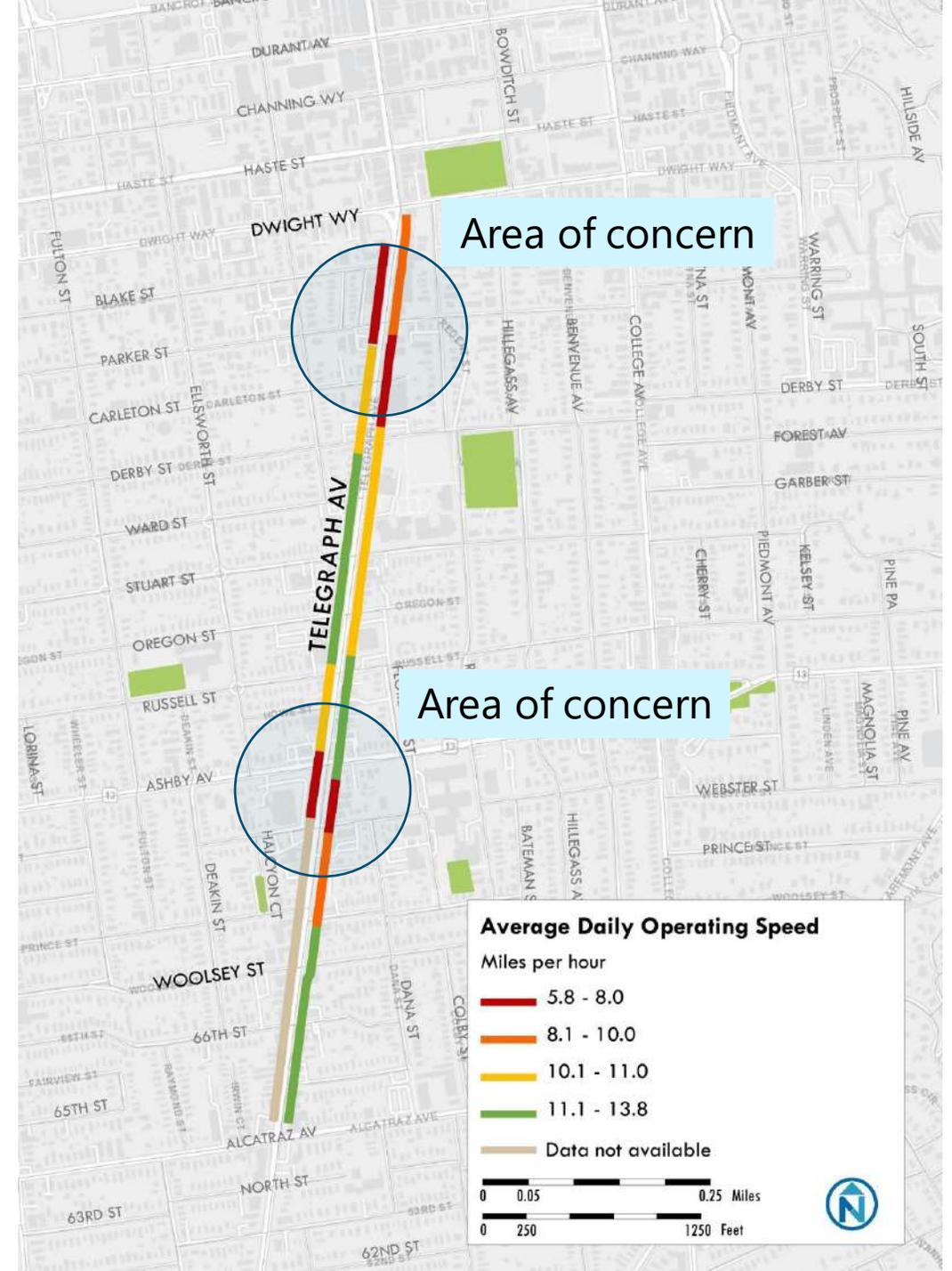
- Connects Berkeley to Oakland via Telegraph Avenue
- Serves transit dependent populations (e.g. UC Berkeley and other students)
- 1,000 daily riders on Telegraph within Berkeley
 - 4,000 daily riders overall (Spring 2022)
 - 30% ridership reduction in Pandemic
- Berkeley ridership focused around Dwight/Parker, Ashby/Webster stops
- Frequent pull-out type stops within Berkeley
 - Will be improved by Telegraph Rapid Project



Transit

AC Transit Route 6

- Analyzed transit speed and reliability data from AC Transit
- Transit travel speeds and reliability vary along corridor
- Factors impacting reliability
 - Pull-out transit stops requires transit to wait to re-enter traffic stream
 - Poor Signal Timing
 - Unsignalized crossings at intersections
 - Near-side stops at intersections



Transit



Near-side bus stops are located immediately before crossing an intersection.

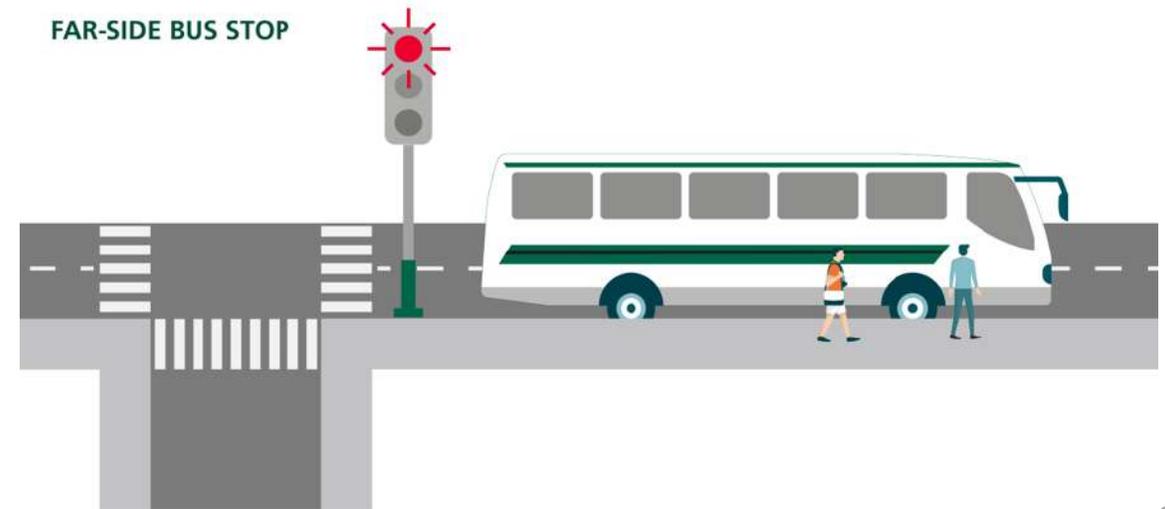
This can create safety concerns for pedestrians using nearby crosswalks who might be hidden by the bus and not visible to drivers.

NEAR-SIDE BUS STOP



Far-side bus stops are located immediately after crossing an intersection.

FAR-SIDE BUS STOP



AC Transit Telegraph Rapid Project

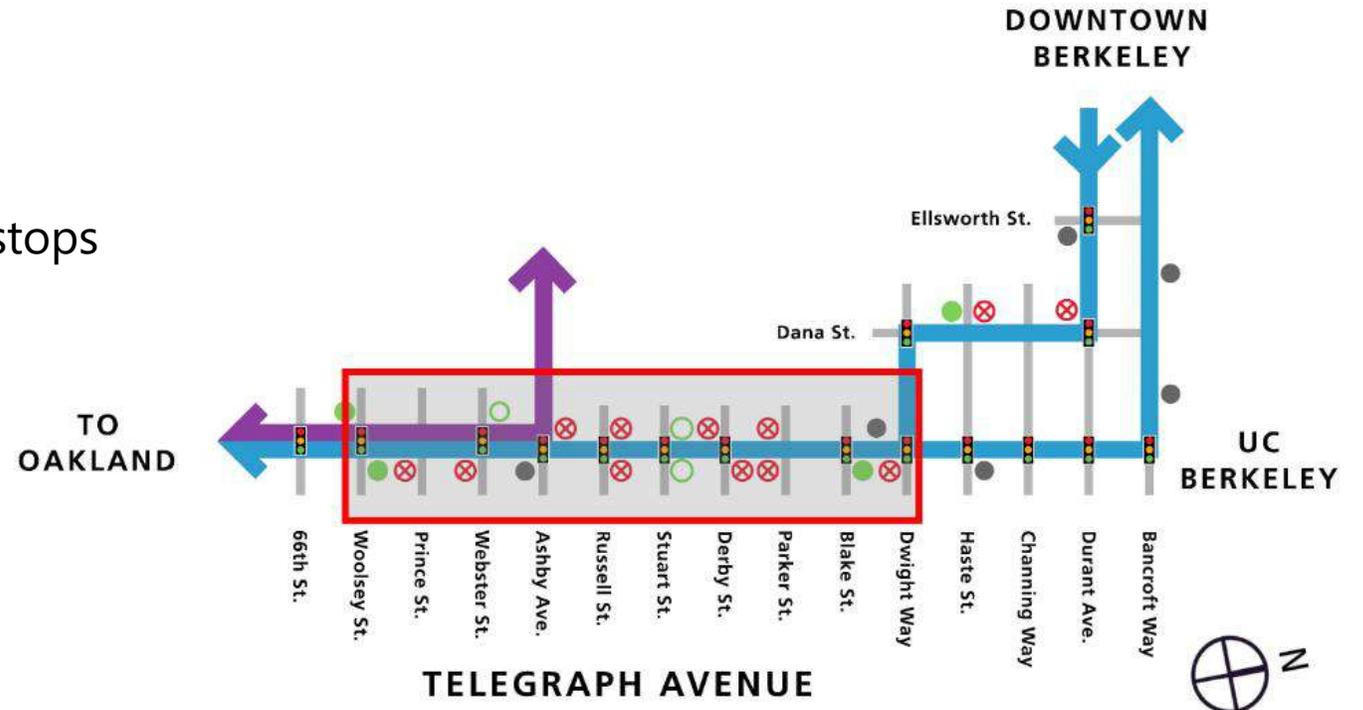


- Project Scope

- Improves speed and reliability
- Improves safety and accessibility to bus stops
- Improves signal timing
- Adds bicycle lanes on Dana St
- Optimizing existing bus stops

- Project Timeline

- Extensive outreach conducted in Spring/Summer 2021 with corridor stakeholder groups, Transportation Commission and City Council, and site visits.
- Construction begins in Spring 2023



Bus Stop Changes		Additional Improvements		Bus Lines	
Addition	●	Existing to Remain	●	800	
Improvement	○	Remove Existing	⊗	6	
			Traffic Signal Improvements		

Parking



Methodology

1. Study area is Telegraph Avenue and a one-block "reasonable walking distance" around Telegraph Avenue
2. Analyzed existing curb space use space-by-space with aerial imagery and site visits
3. Took vehicle counts from aerial imagery on four separate occasions
4. Verified with additional site visit
5. Determined average utilization

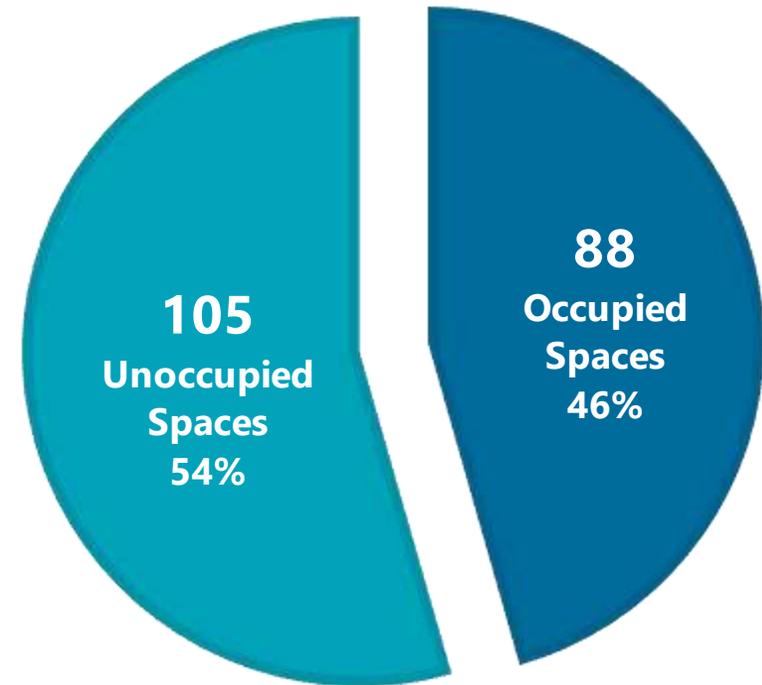


Parking

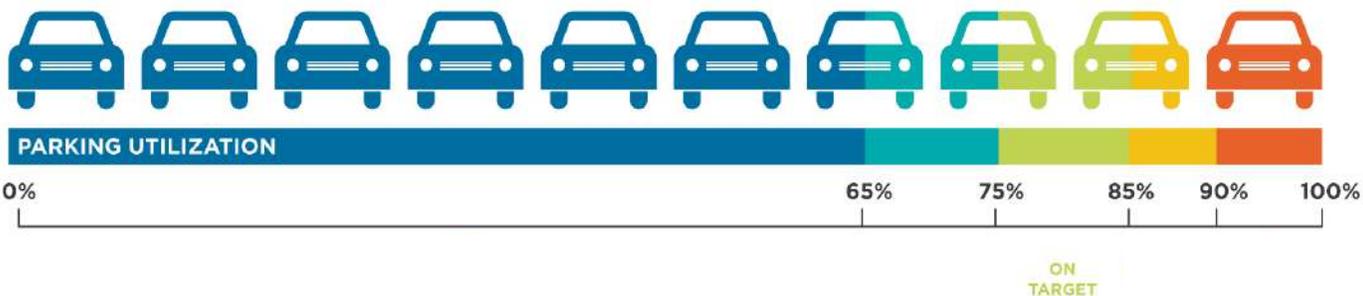


- Evaluating existing on-street parking on Telegraph Avenue
- Higher parking utilization around Dwight Way /Parker Street and Ashby Avenue/Webster Street
- Lower utilization from Derby Street to Ashby Avenue
- City goal is 85% utilization

Average On-Corridor Utilization



193 Public Spaces on Telegraph Ave

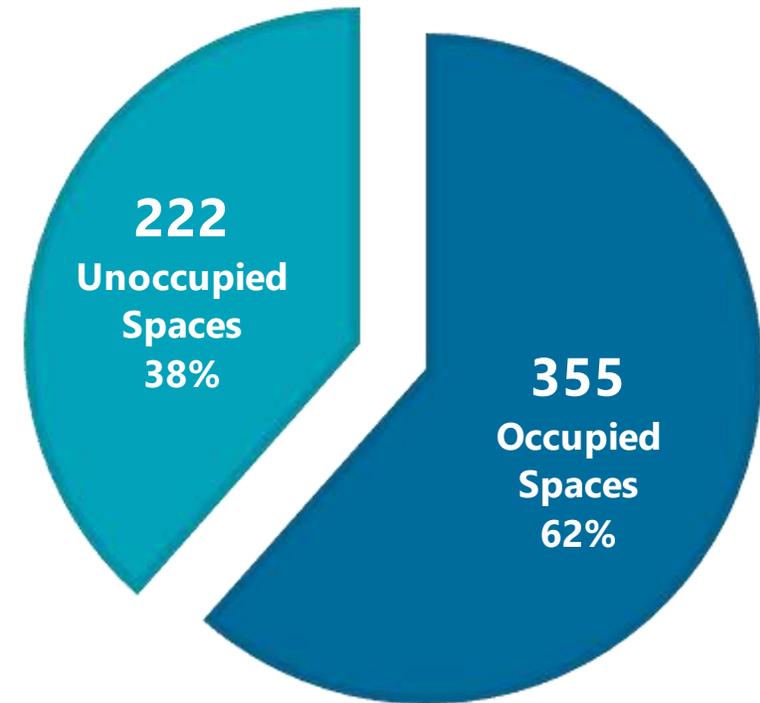


Parking



- Evaluating existing parking within one block of Telegraph Avenue
- Additional parking opportunities
 - 577 on-street parking spaces
 - Two parking garages
 - **22 private lots** between 5 and 130 spaces
 - Unknown number of underground spaces
- Analysis does not include off-street residential spaces

Average Off-Corridor Utilization



577 Public Spaces on Side Streets within a one-block walk of Telegraph Ave

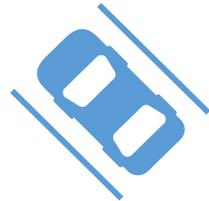
Parking

Telegraph Ave Corridor Vicinity Parking Use



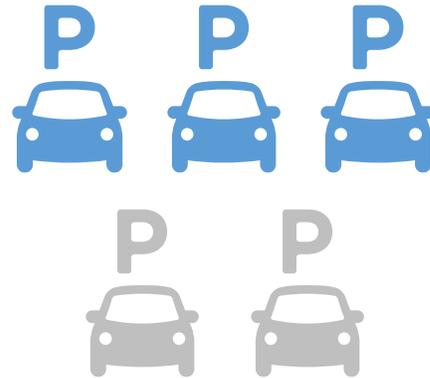
770

Parking on-street spaces on or within one-block walk of the project corridor

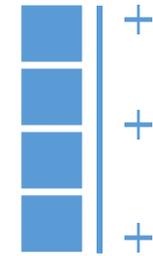


440

Occupied parking on-street spaces on or within one-block walk of the project corridor



On average 2 in 5 on-street spaces are open



250

Approximate "extra" on-street spaces exist

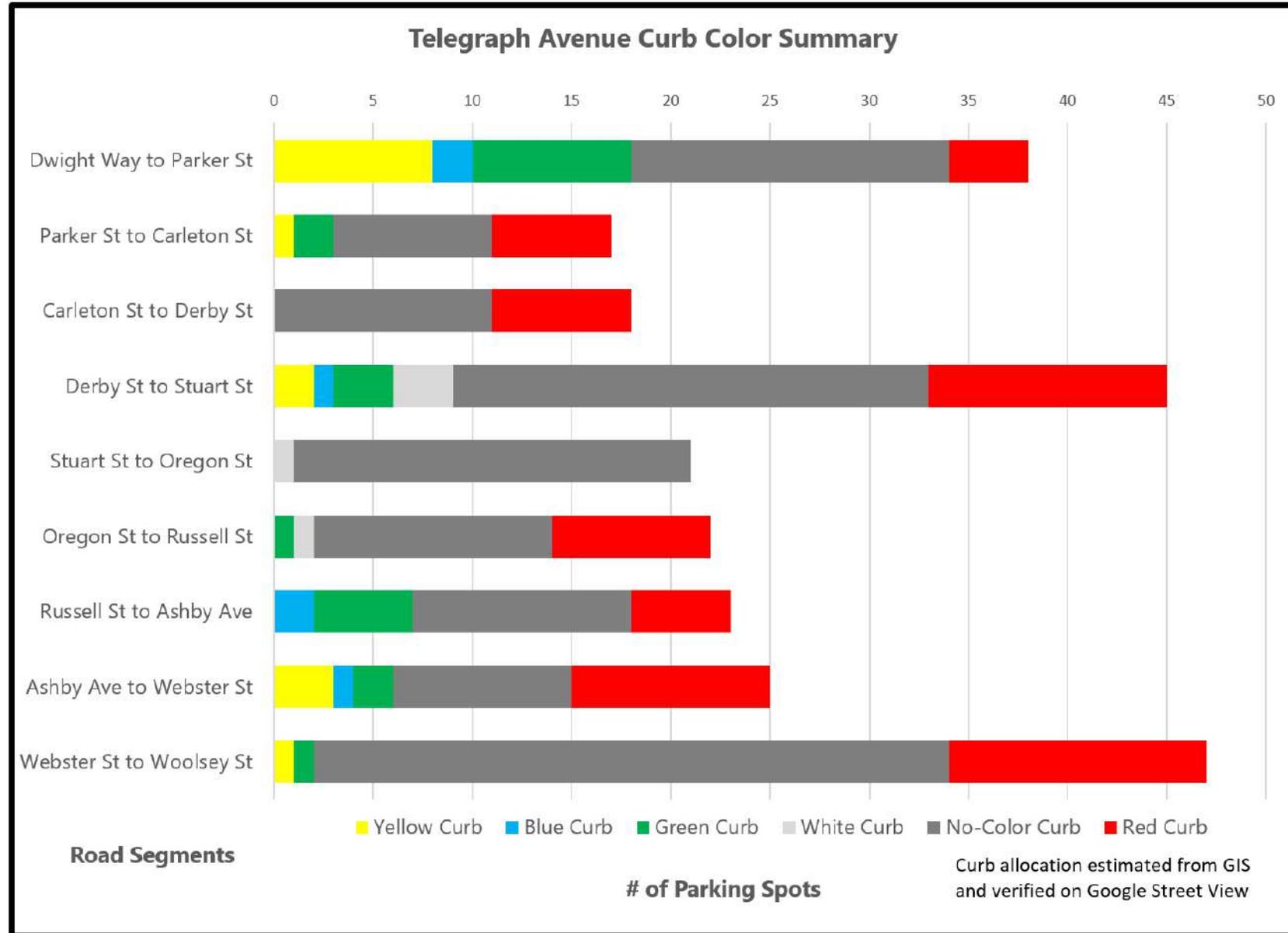
Reconsider Parking

- Provides opportunity to meet other needs
 - Public safety, including emergency response
 - Transit speed & reliability
 - People walking and biking
 - Loading and unloading
 - Accessible parking
 - Parklets



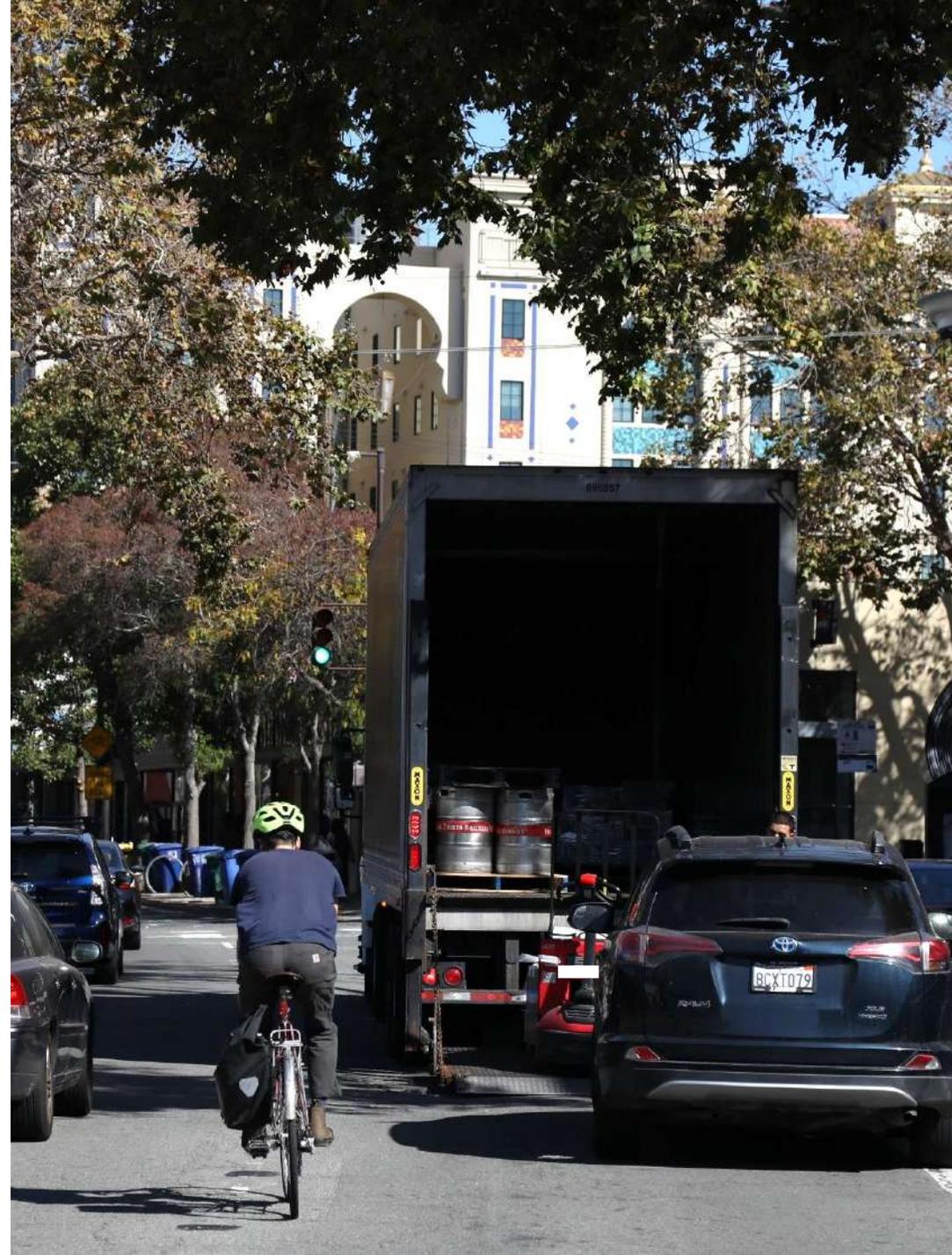
Curb Space

- Supports a variety of curb uses; including parking, loading, and accessibility



Curb Space

- Provides space for loading and unloading
 - Meet community needs
 - Reduce in-lane obstructing
 - Reduce double parking
 - Improve safety and predictability for all users
- Add new accessible parking
 - Increase equity of access

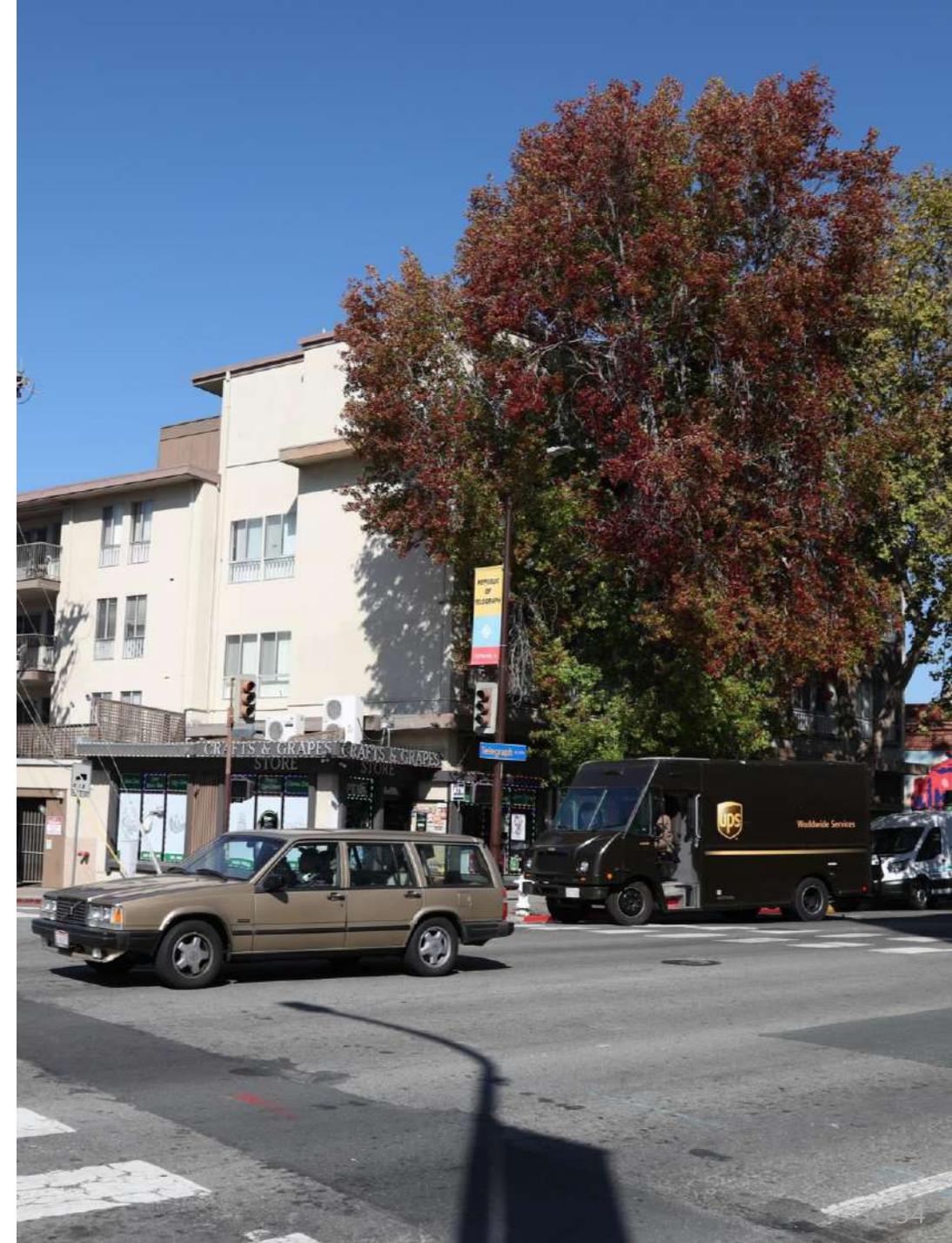




Initial Concepts

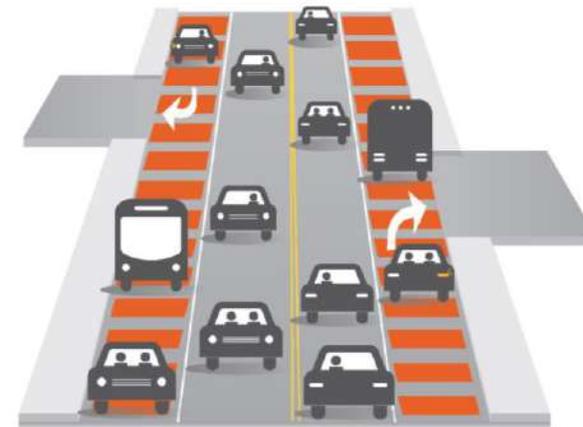
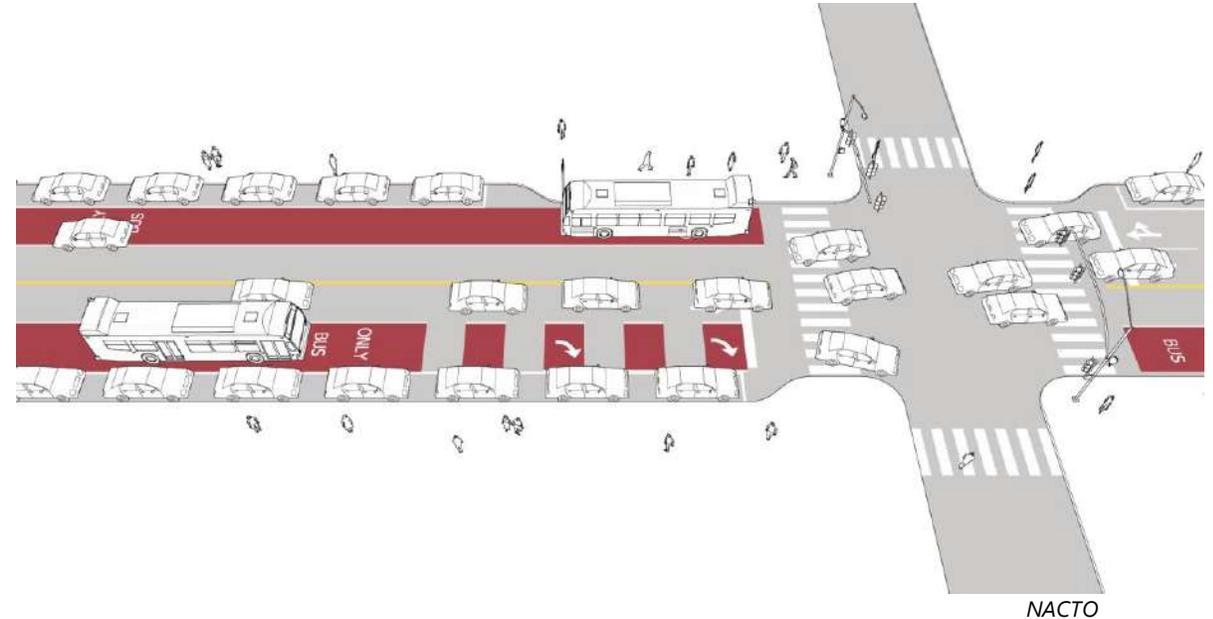
Design Development

- Two high-level concepts
 - Identify public safety shortcomings and opportunities for all users
 - Transit analysis to identify transit priority locations
 - Traffic analysis
 - Parking analysis
 - Curb space assessment
 - Specific loading zones and curb use on each block will be determined as design advances
- We are currently evaluating Concept 1 and Concept 2 as potential designs
- Final Concept may include elements of 1 and 2 as well as new ideas received from public feedback to form a hybrid recommendation



Design Elements

- Business Access and Transit Lanes
 - Dedicated for transit use, but allows some general traffic circulation for turning into driveways or onto intersecting streets
 - Allows for more efficient transit movement through otherwise congested conditions
 - Lessens impact of dedicated bus lanes by maintaining business and residence access



Nelson\Nygaard

Design Elements

- Transit stop islands
 - Safely separates people biking and people using transit
 - Enhanced boarding
 - Enhanced amenities
 - Enhanced transit service
- Loading zones



Design Elements

- Loading zones
 - Provides space for people and businesses
- Strategic short-term parking
 - Encourages space turnover and improves overall availability
- Strategic long-term parking
 - Provides spaces for longer visits and people working on corridor



Design Elements

- Parking-protected bike lanes
 - Protects space for people biking
 - Reduces risk of people being hit by car doors
 - Utilizes existing pavement, drainage, and curblines
- Intersection sight lines
 - Improves visibility between all users
- Floating parking
 - Maintains public, on-street parking
 - Allows for new ADA spaces on Telegraph Ave
- Encourages bicycling by contributing to enhanced safety among users of the bicycle network



Design Elements

- Buffered bike lanes
 - AKA “Protected Bike Lanes”
 - Adds distance between people driving and biking
- Adjacent to travel lanes
- Encourages bicycling by contributing to enhanced safety among users of the bicycle network



Initial Concept 1

- Consistent design every block
- Always includes protected bike lanes along Telegraph Avenue
- Transit lanes along Telegraph Avenue for the entire length



Initial Concept 2

- Explored alternative configurations at each block
- Evaluated trade-offs between transit, turning movements, and parking
- Always includes protected bike lanes along Telegraph Avenue
- NB Transit lane along Telegraph Avenue for the entire length
- SB Transit line along Telegraph from Russell Street to Woolsey Street
- Additional parking and turn lanes provided



Initial Concept 1

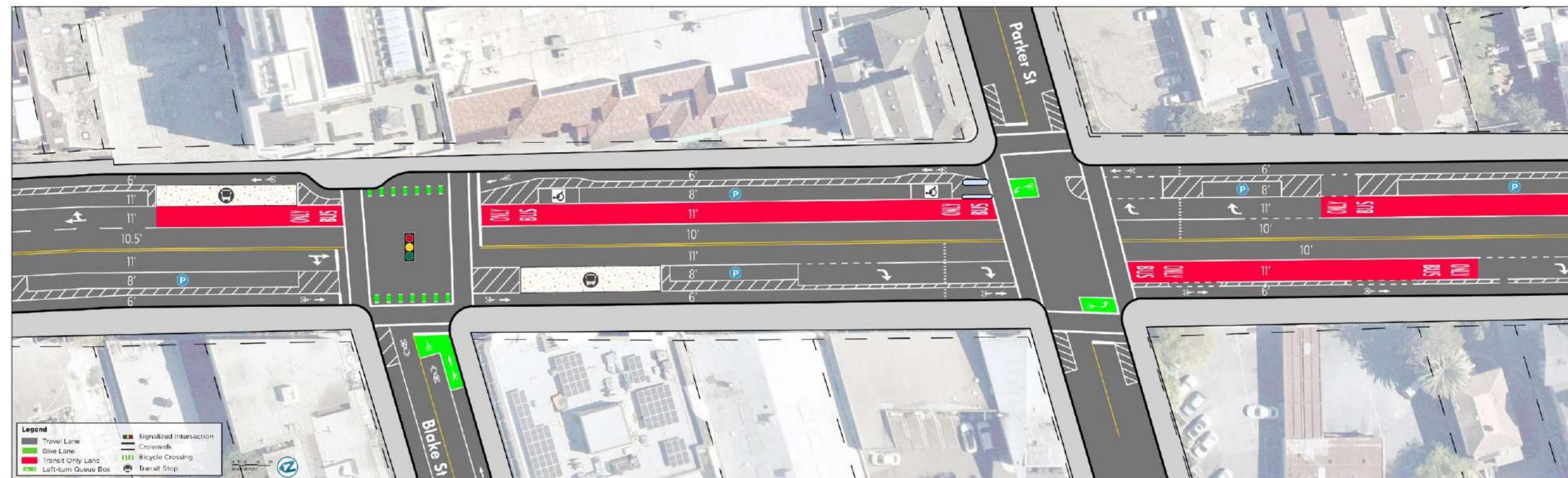
- Benefits
 - Highest level of transit priority to maximize speed and reliability
 - “Futureproofs” transit on Telegraph Avenue for future investments
 - Additional commercial and passenger loading zones and accessible parking spaces (vs. existing)
 - Shorter and more visible pedestrian crossings (vs. existing)
 - Reduction in conflict points between all modes (vs. existing)
 - Encourages drivers to drive at a safe and legal speed (vs. existing)
 - Provides physical protection for people who bike (vs. existing)
- Trade-offs
 - Reduction in parking spaces on Telegraph Avenue (vs. existing) with demand being met within one block
 - Reduction in left turn opportunities (vs. existing and Concept 2)

Initial Concept 2

- Benefits
 - Additional left turn pockets at select locations (vs. Concept 1)
 - Slight increase in parking spaces (vs. Concept 1)
 - Additional commercial and passenger loading zones and accessible parking spaces (vs. existing)
 - Shorter and more visible pedestrian crossings (vs. existing)
 - Reduction in conflict points between all modes (vs. existing)
 - Encourages drivers to drive at a safe and legal speed (vs. existing)
 - Provides physical protection for people who bike (vs. existing)
- Trade-offs
 - Southbound buses subject to delay from Dwight Way to Russell Street (vs. Concept 1)
 - Reduction in parking spaces on Telegraph Avenue (vs. existing), but within demand
 - Reduction in left turn opportunities (vs. existing)

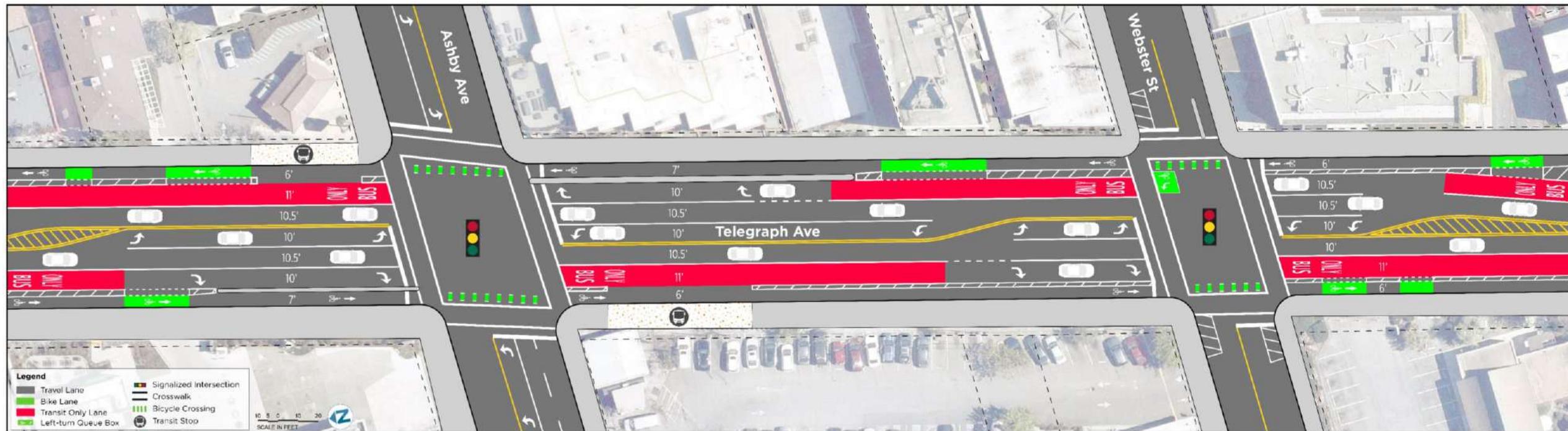
Initial Concept 1

- Example segment – Blake and Parker Street



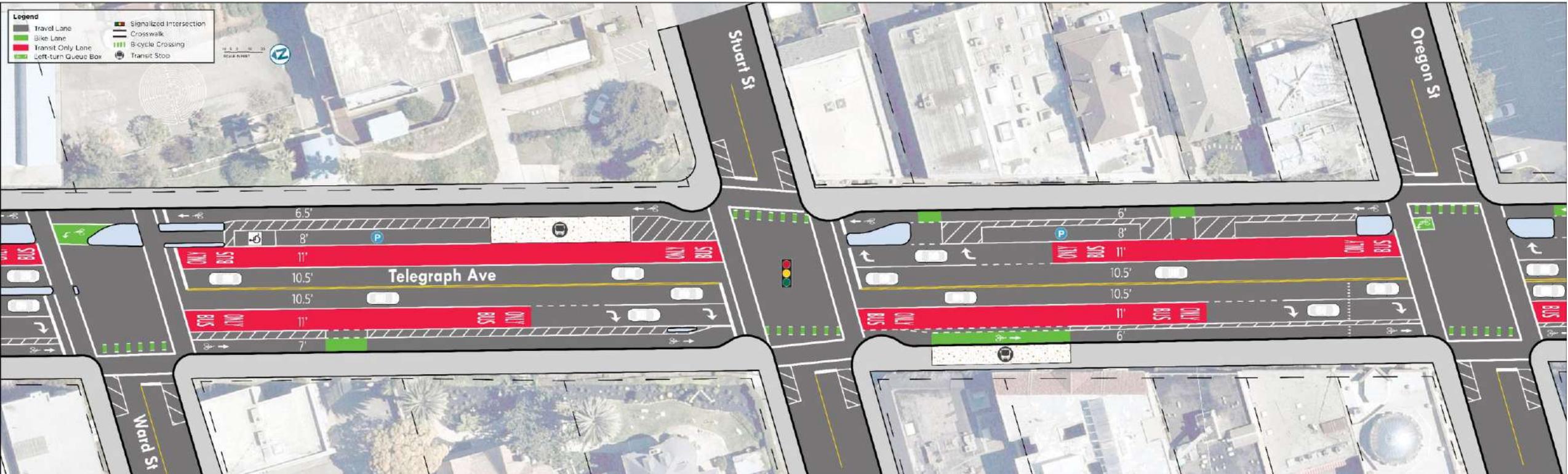
Initial Concept 2

- Example segment – Ashby Avenue and Webster Street



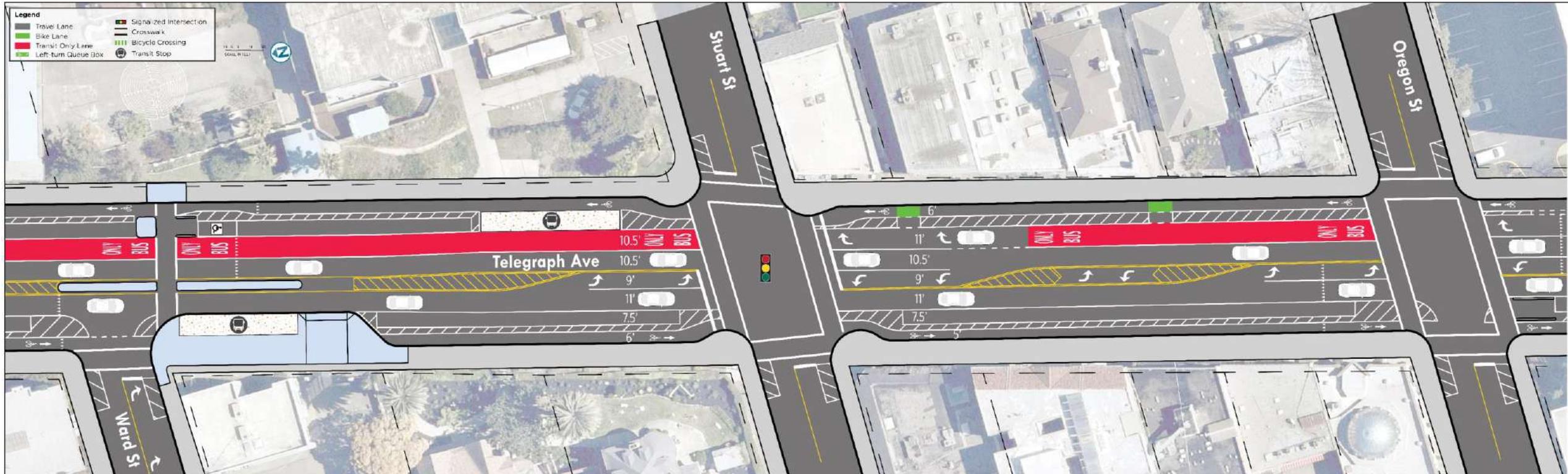
Initial Concept 1

- Example segment – Stuart Street and Oregon Street



Initial Concept 2

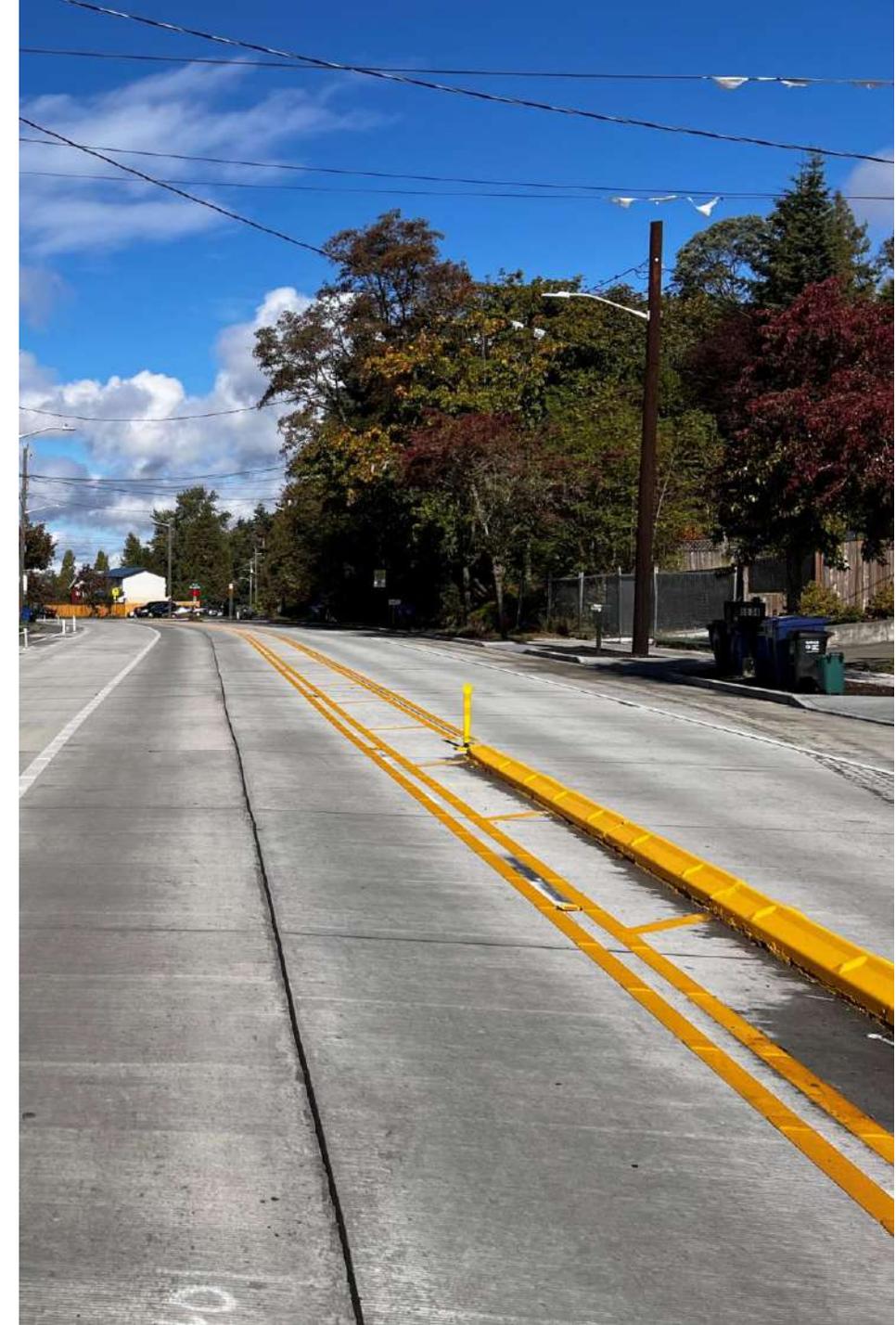
- Example segment – Stuart Street and Oregon Street



Hardscape Buffers



Hardened Centerline

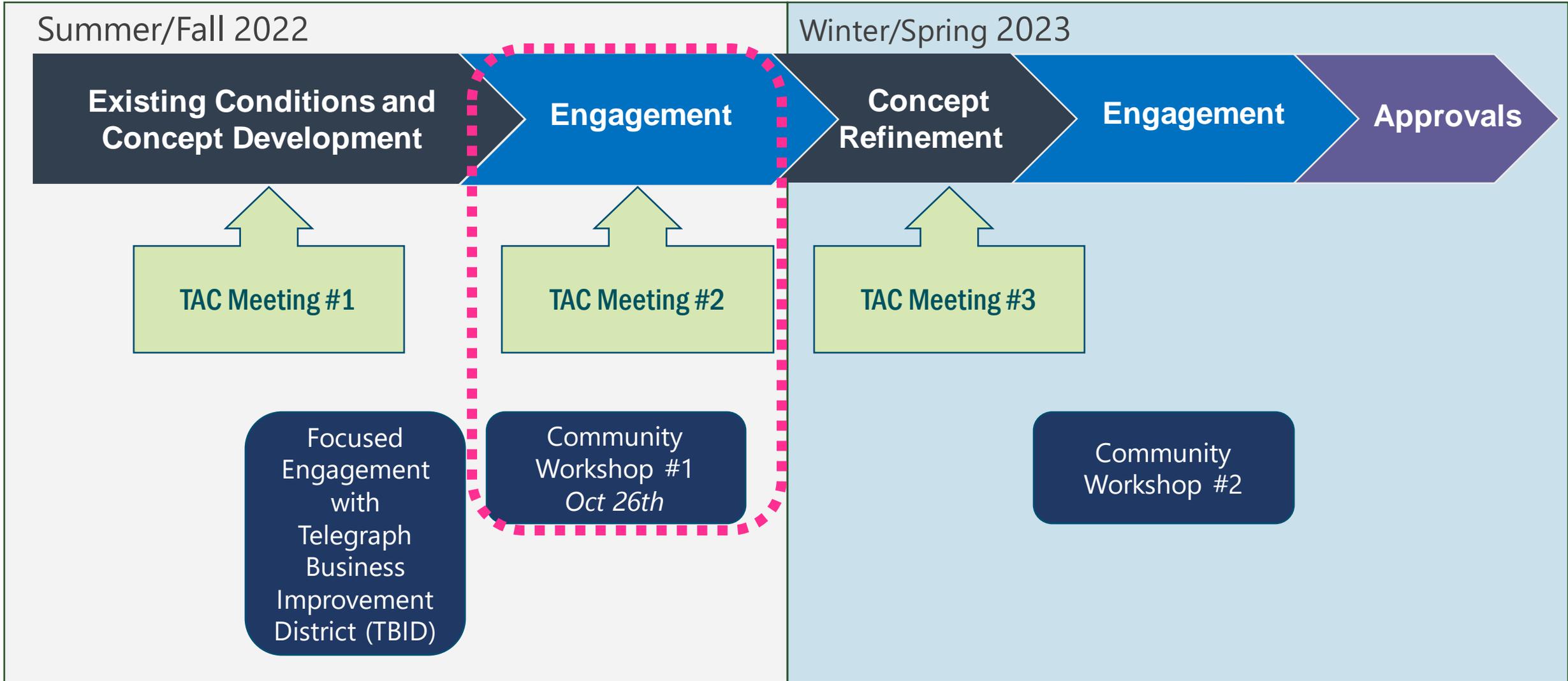




Schedule and Next Steps

Project Schedule

Future phases of this project (detailed engineering and construction) have *not* yet been funded or scheduled.



Breakout Rooms

- Breakout Rooms until 7:45 PM
- Share full Concept 1 and Concept 2
- Opportunity for Questions and Feedback
- Please provide space for all to participate
- Large Group Debrief at 7:45 PM

Thank you!

